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ABSTRACT

This report presents data obtained from a survey of District of Columbia public school teachers who would become eligible for retirement in school years 1986 through 1991. Findings indicate that well over one-third of the respondents plan to retire when first eligible at the age of 55, while 30 percent plan to delay retirement. If the remaining 29 percent of uncertain respondents make career decisions in a similar pattern, approximately two-thirds (64 percent) of the respondents may leave classroom teaching when first eligible for retirement. A copy of the survey questionnaire is appended, as well as tables presenting information on: (1) data summaries from retirement eligible teachers' survey; (2) retirement plans by gender; (3) retirement reasons and incentives not to retire by teaching assignment and gender; (4) reasons for not retiring by gender; and (5) retirement plans by first year of eligibility. References and suggested readings are also appended. (JD)

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STUDY OF RETIREMENT ELIGIBLE DCPS TEACHERS FOR SCHOOL YEARS 1986-1987 THROUGH 1990-91

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May 1988

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District of Columbia Public Schools

Study of Retirement Eligible DCPS Teachers for School Years 1986-1987 through 1990-91

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May 1988

Retirement Eligible DCPS Teachers for
School Years 1986-1987 to 1990-91

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Summary of Findings:
Study of Retirement Eligible DCPS Teachers for
School Years 1986-87 to 1990-91

Overview of the Study

Throughout the nation, teachers' average age and average number of years of teaching experience have risen. Concurrently DCPS, is also, experiencing an "aging" of its teaching force. Grissmer, et al. (1985) found that large numbers of current DCPS teachers will be reaching retirement age over the next ten years. During this period, enrollments are expected to increase substantially, first at the elementary level, then at the secondary level.

Given trends toward shrinking pools of new teachers, the loss of large numbers of experienced teachers to retirement appears to pose serious threats to DCPS success in staffing schools in the near future. However, dire predictions about coming teacher shortages are based, in part, on the assumption that a majority of teachers will choose to resign from the classroom when first eligible for retirement. If true, this could cause acute demands for teachers in some areas; namely, elementary schools, vocational/trade programs, and senior high schools (See Grissmer, et al., 1985: 39). However, DCPS teachers are not subject to mandatory retirement; therefore, they may continue to teach as long as they wish and are able after becoming eligible for retirement. Teachers who first become eligible for retirement at age 55 may well choose to continue in the classroom for another ten years or more.

In this context, teacher demand projections need to account for retirement-eligible teachers' resignation behaviors. If retirement-eligible teachers choose to (or can be persuaded) continue teaching through peak enrollment increase periods, available predictions may overestimate the extent of anticipated teacher shortages.

The Study Design

To investigate future attrition patterns for DCPS, the Division of Quality Assurance (DQA) surveyed teachers who would become eligible for retirement in school years 1986-1987 through 1990-1991, asking them to indicate their career plans. (The survey instrument is attached in Appendix A of this report.)

Because accurate listings of retirement-eligible teachers for this period were not easily obtained from the school system, DQA administered the survey through building principals in all "mainstream" elementary and secondary schools. (Special education, adult education, alternative, and career development programs were excluded from the study.) Building principals were asked to identify retirement-eligible faculty members, in order to distribute survey packages to these teachers, and to monitor survey returns for their schools.

Because DQA could not control adherence to the suggested administration procedures, response rates could not be calculated for the study. Analysis of background data gleaned from the 621 usable surveys returned suggests that the respondent pool reflects expected demographic distributions for the DCPS teaching force nearing retirement eligibility. (Appendix B for this section contains summary data from the survey.) For example, the respondents are largely female (83%); most (81%) had between 21 and 35 years of teaching experience in DCPS; and, at the secondary level, teachers of the "humanities" (e.g. English, social studies, and fine arts) were most heavily represented (33%), with computer science and mathematics teachers in the second most substantial levels of response (22%), closely followed by vocational/trade teachers (20%). These data are comparable to those presented by Grissmer, et al., (1985) in their analysis of background profiles for the retirement-eligible DCPS teaching population. Nonetheless, it would be inappropriate to assume that the survey results apply for all DCPS teachers nearing retirement. The results reveal only the reasons cited by some groups and subgroups of teachers that are planning whether or not to retire when first-eligible.

The Study Findings

Well-over one-third of the respondents (41%) plan to retire when first eligible, while 30 percent plan to delay retirement (See Appendix B). If the remaining 29 percent of uncertain respondents can be expected to make career decisions in a similar pattern, approximately two-thirds (64%) of the respondents may leave classroom teaching when first eligible for retirement.

Respondents who are considering retirement when first eligible most frequently selected the following three reasons for their decisions:

1. "I have become discouraged by the stress and pressure of teaching" (34%);
2. "I wish to travel and pursue other leisure activities" (25%); and
3. "I plan to continue working, but in a non-teaching job" (22%).

These three reasons, which account for 81 percent of the responses to this item, may be closely related in the minds of teachers. Stress and pressure may precipitate teachers' longing for "relaxation" in retirement years. Equally, the stress and pressures of classroom teaching may push teachers who wish to continue working into alternative careers. A competing interpretation of these data would argue that respondents who cited leisure and second career reasons for planning to retire may enjoy teaching in DCPS, but simply look forward to changes in lifestyle.

While the survey data can not verify either interpretation, they clearly indicate strong feelings of frustration with teaching, as documented by the sizeable portion (34%) of respondents who indicated that stress and pressure are driving them out of the classroom. This finding is underscored by data that suggest over half the respondents planning to retire when first-eligible have no interest in continuing in the classroom: 36 percent of the respondents say no incentive would reverse their decision to retire; 20 percent indicated that a non-teaching position might keep them in the system.

While the resistance of teachers at or near retirement-eligible status to continuing in the classroom may cause alarm, the interest of these teachers in non-teaching positions opens some policy options. Although hard data have not been collected, it appears that DCPS administrators are "aging" at the same time as teachers. It is possible that some teachers planning to retire from the classroom could be attracted into administrative positions, satisfying both the teachers' desires for non-teaching second careers and DCPS demands for administrators in coming years.

The aggregate findings from the survey are in themselves interesting. It is also useful to contrast patterns of retirement-planning in relevant subgroups of respondents. First, it is somewhat surprising to find that proportionally more females than males in this sample plan to retire when first eligible [42% versus 38%, respectively (see Appendix C)]. Given that the DCPS retirement-eligible teaching force is overwhelmingly female, this finding deserves attention: High rates of early retirement among females will more drastically affect staffing demands than the same among males.

Furthermore, female respondents cite "stress and pressure" most frequently as the reason for planning to retire when first eligible (36.4%), while males most frequently cite interest in pursuing non-teaching careers (43.6%)--only 17 percent of the female respondents plan to resign in order to pursue alternative careers. Two concerns are raised by these data. First, because the number of retirement-eligible males in DCPS is relatively small, their attraction into administrative positions probably

would not significantly alleviate demands for administrators in coming years. Second, significant improvements in the DCPS teaching environment are not likely to be felt by teachers for several years after implementation of any policies designed to reduce stress and pressure in the classroom. Teachers--particularly large numbers of female teachers, but also males who, in this study, cited stress and pressure second most frequently as their reason for retirement--may not be willing to delay retirement while waiting for promised reductions in the stress and pressures they feel in their teaching careers. This interpretation is supported to some extent by data that show almost one-third (38%) of the female respondents who plan to retire when first eligible say no incentive would reverse their decision.

A second set of interesting contrasts in the survey data emerge from a comparison of responses from teachers at various educational levels. Table 1 presents plans for retirement when first-eligible for early childhood, elementary, junior high, and senior high school teacher-respondents.

TABLE 1

Teacher Retirement Plans by Educational Level

Teaching Assignment by Educational Level	% Planning to Retire When First Eligible
Early Childhood Education	45%
Elementary Education	44%
Junior High School	42%
Senior High School	32%

As shown in Table 1, respondents working with younger children are more likely to retire when first eligible than those working with older students. Collapsing categories, 44 percent of the elementary school teacher-respondents plan to retire when first eligible, while only 32 percent of the secondary school teacher-respondents intend to do so. Cause for concern is raised by this finding because, in the next five years, DCPS expects significant enrollment increases at the elementary level. If a disproportionate number of retirement-eligible teachers at the elementary level choose to resign, staffing shortages may result.

Moreover, the early childhood and elementary teacher-respondents most frequently (41% and 36% respectively) cited "stress and pressure of classroom teaching" as the primary cause for their planning to resign (see Appendix D). As discussed previously, these are problems that can be solved or significantly addressed in the short run. In contrast, a majority of secondary teacher-respondents (20%) indicated that assignment to non-teaching positions could hold them in DCPS, in spite of plans to retire when first eligible-- "stress and pressure" and "intentions to pursue leisure activities" attracted the second most frequent response levels (28% each) for this group. Perhaps, teachers at the secondary level may be more retainable in the school system, if administrative positions are made available, in the short run, and if working conditions are improved by the time enrollment increases impact on secondary schools.

While the data presented so far may cause alarm, data from respondents who expect to delay retirement are more encouraging. More than two-thirds (69% female and 65% male) of respondents who do not plan to retire when first eligible indicate that they want to continue teaching because they enjoy teaching and believe that they have more to contribute (see Appendix E). DCPS may have in its teaching force a rather sizeable group of older teachers who are satisfied with and pleased to have the opportunity to continue their careers. In addition, more than a third of the respondents who plan to continue to teach hope to stay with the system for four or more years after first becoming eligible for retirement (See Appendix B). This "continuing" group may help to offset expected teacher shortages, although more at the secondary levels than at the elementary levels.

The survey respondents are unevenly distributed in terms of their attaining retirement-eligible status through the five year period studied, as shown in Figure 1:

Figure 1
Sample Characteristics
Percent Eligible for Retirement by Year

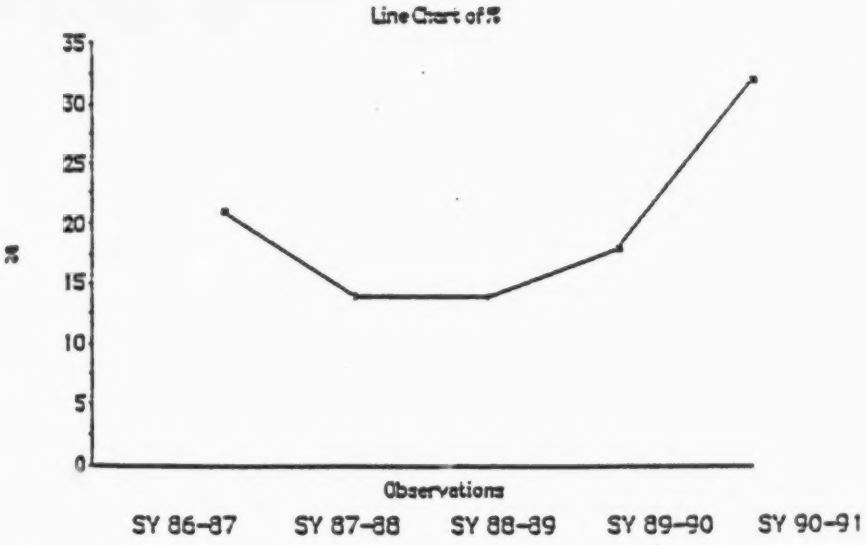

Figure 1 shows that the heaviest concentrations of respondents (teachers becoming eligible for retirement) fall in the beginning and ending years of the period studied, with 22 percent concentrated in school year 1986-87; and 32 percent, in the school year 1990-91. Furthermore, a full 50 percent of the respondents will not become eligible for retirement until the last two years of the period studied, but within this group, about half of the respondents now believe that they will retire when first eligible. In contrast, only about one-fifth (18%) and two-fifths (43%) of the respondents who become eligible to retire in 1986-87 or in 1987-88 plan to resign in those years (see Appendix F).

From a policy-making perspective, these data suggest that DCPS may have a one-to two-year grace period for designing and implementing strategies to keep a sizeable number of retirement-eligible teachers in the classroom or, at least, in the system. While it is likely that teachers whose retirement eligibility begins in SY 1986-87 or 1987-88 have made fairly firm retirement plans, the remainder (who appear to be seriously considering retirement when first eligible) might be persuaded to continue teaching for some years. The data further suggest that any incentive package must address issues of stress and pressure in classroom teaching, should offer some flexibility in teaching load (to accommodate both desires for non-teaching and part-time teaching assignments--the second and third most frequently cited incentives for delaying retirement), and would gain support if salaries were increased (the fourth most frequently cited incentive to delay retirement).

Appendices

Appendix A:

Questionnaire for Retirement Eligible Teachers

Part I
Background Information

1. What is your current teaching assignment? (Check one only.)

___ Early childhood (pre-k or kindergarten)

___ Elementary school

___ Middle school

___ Junior high school

___ Senior high school

___ Special education (elementary or secondary)

___ Bilingual education/ESL (elementary or secondary)

___ Career development

___ Alternative school/street academy

___ Other: (Please specify.) _____

_____

2. If you teach in a classroom at the secondary level (in a middle school, junior or senior high school), please check the primary subject area you currently teach. (Check one only.)

___ Bilingual education/ESL

___ Business/secretarial courses

___ English/language arts

___ Foreign languages

___ Industrial arts

___ Physical sciences

___ Special education

___ Other: (Please specify.) _____

_____

___ Biological sciences

___ Computer science

___ Fine arts (drama, music, art)

___ Health/physical education

___ Mathematics

___ Social science (history, psychology, civics, etc.)

3. Are you:

___ Female

___ Male

4. Including this school year, how many years have you been a full-time classroom teacher?

Number of years ___

5. Including this school year, how many years have you been employed as a full-time classroom teacher in the District of Columbia Public Schools (DCPS)?

Number of years ___

Part II
Retirement Information

6. In which school year will you first become eligible for retirement from the D.C. Public Schools? (Check one only.)

___ 1986-87 (this school year)
___ 1987-88
___ 1988-89
___ 1989-90
___ 1990-91

7. As of now, do you plan to retire when you first become eligible? (Check one only.)

___ Yes (Answer questions 8, 9, and 12 only.)
___ No (Answer questions 10, 11, and 12 only.)
___ At this time I am uncertain of my retirement plans. (Please stop here and turn in your survey.)

8. If you answered "Yes" to Question 7, which of the following statements best describes your major reason for considering retirement in the year in which you first become eligible? We know that often there is more than one reason for considering retiring, but please give us your single most important reason. (Check one only.)

___ I am retiring because of personal health reasons.
___ I plan to continue working, but in a non-teaching job.
___ I wish to travel and pursue other leisure activities.
___ I have become discouraged by the stress and pressures of teaching.
___ I will be financially better off if I retire when I am first eligible.
___ My spouse will also be retired.
___ Other: (Please briefly explain.) _____

_____

9. If you answered "Yes" to Question 7, which one of the following incentives might be most influencial in convincing you to consider remaining as a teacher in DCPS beyond your planned retirement date? (Check one only.)

___ A reduction of the non-instructional demands placed on me

___ A re-assignment to teach in another school in DCPS

___ A re-assignment to a non-teaching job in DCPS

___ An increase in my salary beyond the limits now set by the DCPS teachers' salary scale

___ An opportunity to teach on a part-time basis in my present school or in another school in DCPS

___ There are no incentives that would cause me to reconsider my retirement plans at this time.

___ Other: (Please briefly explain.) _____

_____

10. If you answered "No" to Question 7, which one of the following statements best describes your major reason for not considering retirement on the date when you first become eligible? (Check one only.)

___ My retirement income alone would be insufficient to support me and my family.

___ I enjoy teaching and believe I have something yet to contribute.

___ I will wait for my spouse to retire with me.

___ Other: (Please briefly explain.) _____

_____

11. If you answered "No" to Question 7, when do you anticipate retiring? (Check one only.)

___ One year after I first become eligible

___ Two years after I first become eligible

___ Three years after I first become eligible

___ Four or more years after I first become eligible

12. If you answered "Yes" or "No" to Question 7, how certain are you at this time of your plans to retire or stay in teaching? (Check one only.)

___ Very certain

___ Certain

___ Uncertain

___ Very uncertain

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS SURVEY.

****
* *
* PLEASE SEAL THE COMPLETED SURVEY IN THE ENVELOPE PROVIDED *
* AND RETURN THE SEALED ENVELOPE TO YOUR SCHOOL OFFICE FOR *
* FORWARDING. *
* *
****

Appendix B:

Data Summaries from Retirement Eligible Teachers' Survey

A Survey of Current Teachers, Regarding Plans to Retire
When First-Eligible
Preliminary Results

Return Profile	
Usable Responses	N=621

Respondent Profile Data

1. Full-time DCPS teaching assignment	
Early Childhood (Pre-K,K)	6.4%
Elementary School	53.1%
Middle School	.3%
Secondary Schools (Total)	32.5%
[Junior High School	16.6%]
Senior High School	15.9%]
Other (e.g. ESL, Special Ed, Career Development, etc.)	7.6%
2. Subject Area Specialties (where applicable)	
Humanities (English, Social Studies, etc.)	32.7%
[English	15.9%]
Special Education	3.1%
Mathematics/Computer Sciences	11.5%
[Mathematics	10.2%]
Foreign languages	4.0%
ESL/Bilingual Education	0.0%
Sciences	9.8%
Physical Education	8.4%
Vocational/Industrial/Technical Education	19.9%
Other	10.6%
[Driver's Education	7.1%]
3. Sex	
Male	17.5%
Female	82.5%
4. Total years of full-time teaching experience	
10 years or fewer	1.2%
11-15	2.6%
16-20	11.5%
21-25	21.9%
26-30	40.2%
31-35	18.9%
36-40	3.4%
41 years or more	.5%

5.	Years of DCPS full-time teaching experience	
	10 years or fewer	2.2%
	11-15	3.6%
	16-20	18.9%
	21-25	30.4%
	26-30	33.4%
	31-35	10.5%
	36-40	.8%
	41 years or more	.4%
6.	Year First Eligible for Retirement	
	1986-1987	21.4%
	1987-1988	14.3%
	1988-1989	13.9%
	1989-1990	17.9%
	1990-1991	32.4%
7.	Plans for Retirement	
	Plan to Retire when First Eligible	41.3%
	Plan to Delay Retirement	29.7%
	Uncertain about Retirement Plans	29.0%

For Respondents Planning to Retire When First Eligible (N=379)

A.	Major Reason for Planning to Retire When First Eligible	
	Personal health considerations	8.7%
	Plan to work in a non-teaching job	21.5%
	Want to travel and pursue leisure activities	25.2%
	Discouraged by stress and pressure of teaching	34.3%
	Personal financial situation will improve with retirement	.8%
	Spouse also will be retired	6.2%
	Other	3.3%
B.	Most Influential incentive for Reversing Plans	
	Reduction of non-instructional duties	8.8%
	Transfer to another school	.8%
	Assignment to a non-teaching job	20.1%
	Salary increase	15.1%
	Part-time teaching assignment	16.7%
	Nothing	36.0%
	Other	2.5%

For Respondents Who Plan to Delay Retirement (N=170)

A.	Major Reason for Delaying Retirement	
	Retirement income would be insufficient	24.7%
	Enjoy teaching/have more to contribute	69.4%
	Waiting for spouse's retirement	2.9%
	Other	2.9%

B. Scheduled Time for Retirement

1 year after becoming eligible	8.3%
2 years after becoming eligible	25.4%
3 years after becoming eligible	20.1%
4 or more years after becoming eligible	46.2%

For All Respondents Who Have Made Retirement Plans (N=421)*

Degree of Certainty of Plans

Very Certain	40.9%
Certain	37.0%
Uncertain	18.3%
Very Uncertain	3.8%

*Those who answered "yes" or "no" to Survey Question 7: "As of now, do you plan to retire when you first become eligible?"

Appendix C:

Retirement Plans by Sex

RETIREMENT PLANS BY SEX

	N	YES	NO	UNCERTAIN
SEX				
Female	509	42.2%	28.9%	28.9%
Male	108	38.0%	31.5%	30.5%

Reason For Plans To Retire By Sex

	FEMALE N=203	MALE N=39
Major Reason		
Health	8.4%	10.3%
Other Job	17.2%	43.6%
Fun and Leisure	26.6%	17.9%
Stress and Pressure	36.4%	23.1%
Financial Concerns	0.5%	2.6%
Spouse's Retirement	7.4%	0.0%
Other	3.4%	2.6%

Appendix D:

Retirement Reasons and Incentives Not to Retire by Teaching Assignment and Sex

INCENTIVES TO NOT RETIRE BY SEX

	FEMALE N=200	MALES N=39
INCENTIVES		
Reduction of Duties	9.5%	5.1%
Transfer	1.0%	0.0%
Non-Tching Assign.	20.5%	17.9%
Increase Salary	12.0%	30.8%
P-T Teaching	17.5%	12.8%
Nothing	38.0%	25.6%
Other	1.5%	7.8%

REASON FOR PLANS TO RETIRE BY TEACHING ASSIGNMENT

	ECE N=1/	ELEM N=137	Junior HS N=43	Senior HS N=29
MAJOR REASON				
Health	5.9%	10.2%	9.3%	3.4%
Other Job	5.9%	19.0%	30.2%	31.0%
Fun and Leisure	29.4%	24.1%	25.6%	27.6%
Stress and Pressure	41.2%	35.8%	25.6%	27.6%
Financial Concerns	5.9%	0.0%	0.0%	3.4%
Spouse's Retirement	11.8%	7.2%	4.7%	3.4%
Other	0.0%	3.6%	4.7%	3.4%

REASON FOR PLANS NOT TO RETIRE BY TEACHING ASSIGNMENT

	ECE	ELEM	Junior HS	Senior HS
	N=17	N=136	N=38	N=31
MAJOR INCENTIVE				
Reduction of Duties	11.8%	10.3%	2.6%	9.7%
Transfer	5.9%	0.7%	0.0%	0.0%
Non-Tching Assgn.	11.8%	20.6%	21.0%	19.3%
Increase Salary	0.0%	10.3%	26.3%	25.8%
P-T Teaching	35.3%	15.4%	15.8%	12.9%
Nothing	35.3%	41.2%	28.9%	25.8%
Other	0.0%	1.5%	5.3%	6.4%

Appendix E:

Reasons for Not Retiring by Sex

REASON TO NOT RETIRE BY SEX

	FEMALE	MALES
	N=136	N=31
MAJOR REASON		
Need Income	27.2%	16.1%
Enjoy Teaching	69.8%	64.5%
Waiting for Spouse	1.5%	9.7%
Other	1.5%	9.7%

Appendix F:

Retirement Plans by First Year of Eligibility

Retirement Plans By 1st Year of Eligibility

Year	N	Plan to Retire	Plan to Continue	Uncertain
1986-87	133	18%	53%	29%
1987-88	89	43%	31%	26%
1988-89	86	40%	31%	29%
1989-90	111	54%	15%	31%
1990-91	201	50%	21%	29%

References and Suggested Readings

References
and Suggested Readings

American Association of Colleges for Teacher Education. (1987.) Teaching Teachers: Facts & Figures. Washington, DC.

_____. (1986.) Teacher Education in the State: 50-State Survey of Legislative and Administrative Actions. Washington, DC.

Boozer, Robert F. (1987.) Supply and Demand: Education Personnel in Delaware, 1986-87. Document No. 95- 10/98/05/12, prepared for the Delaware Department of Public Instruction. Dover, Delaware.

Darling-Hammond, Linda. (1984.) Beyond the Commission Reports: The Coming Crisis in Teaching. Santa Monica, CA: The Rand Corporation.

Feistritzer, C. Emily. (1986.) Teacher Crisis: Myth or Reality? A State-by-State Analysis 1986. Washington, DC: National Center for Education Information.

_____. (1986.) Profile of Teachers in the U.S. Washington, DC: National Center for Education Information.

_____. (1985.) The Condition of Teaching: A State by State Analysis, 1985. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching. [ED 267 070].

Gerald, Debra E. (1985.) Projections of Education Statistics to 1992-1993. Methodological Report with Detailed Projection Tables: NCES-85-408. Washington, DC: Center for Education Statistics.

Grissmer, David W. (1987.) Teacher Projections for DCPS.

_____. (1985.) Projection of Teacher Demand for the District of Columbia Public Schools. Working draft prepared for the District of Columbia Public Schools, #WD-2781-DCPS. Santa Monica, CA: The Rand Corporation.

_____, Linda Darling-Hammond, and Corazon Francisco. (1985.) A Prototype Personnel Planning System for the D.C. Public Schools, #WD-2547-DCPS. Santa Monica, CA: The Rand Corporation.

_____, and Sheila Nataraj Kirby. (1987.) Teacher Attrition: The Uphill Climb to Staff the Nation's Schools. Santa Monica, CA: The Rand Corporation.

Hawley, Willis D. (1986.) "Toward a Comprehensive Strategy for Addressing the Teacher Shortage." Phil Delta Kappan, 67 (10): 712-718.

Louis Harris and Associates, Inc. (1986.) The Metropolitan Life Survey of the American Teacher 1986: Restructuring the Profession. New York, NY.

_____. (1985) The Metropolitan Life Survey of Former Teachers in America. New York, NY.

National Association of State Directors of Teacher Education and Certification. (1985?) NASDTEC Directory.

National Education Association. (1987.) Status of the American Public School Teacher. Washington, DC.

Palaich, Bob. (1983.) "State Policies to Screen and Attract Teachers." Issuegram 23. Denver, CO: Education Commission of the States. [ED 234 506].

_____, and Donald Burnes. (1983.) "Teacher Shortages in the Next Decade." Issuegram 24. Denver, CO: Education Commission of the States. [ED 231 815].

Task Force on Merit Pay for Teachers. (1984.) A Study of Teacher Incentives for the District of Columbia Public Schools: Technical Report. Washington, DC: District of Columbia Public Schools.

Task Force on Teaching as a Profession of the Carnegie Forum on Education and the Economy. (1986.) A Nation Prepared: Teachers for the 21st Century, The Report of the Task Force on Teaching as a Profession. New York, NY.

The Holmes Group. (1986.) Tomorrow's Teachers. East Lansing, MI: Eastern Michigan University.

Wise, Arthur E.; Linda Darling-Hammond, Barnett Berry, and others. (1987.) Effective Teacher Selection: From Recruitment to Retention. ..... Santa Monica, CA: The Rand Corporation.

Zarkin, Gary, A. (1985.) The Importance of Economic Incentives in the Recruitment of Teachers. Final report to the U.S. Department of Education, National Institutes of Education under contract# NIE-G-83-0063. [ED 256 050].